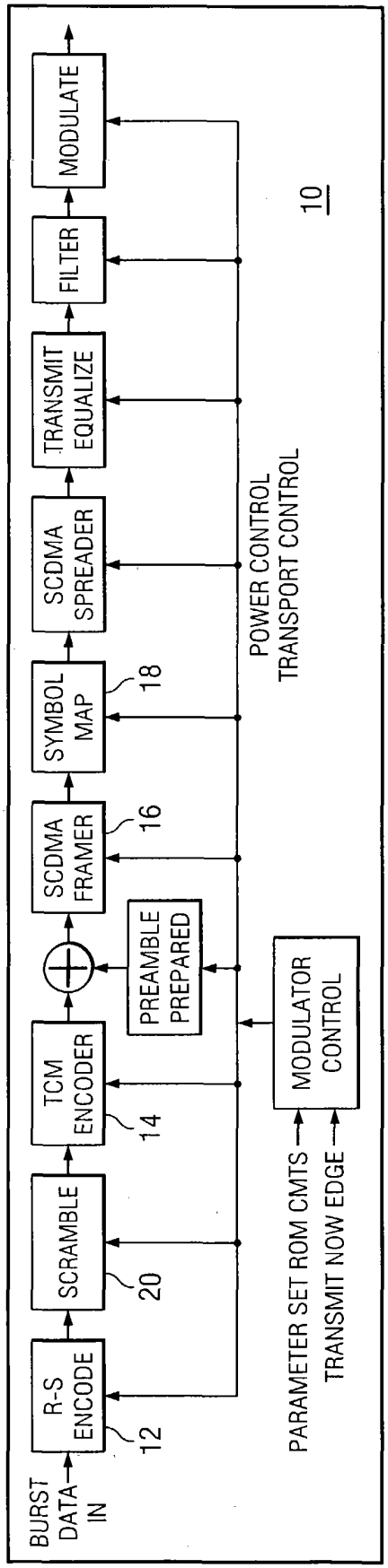

BURST DATA IN
R-S ENCODE
12
SCRAMBLE
20
TCM ENCODER
14
PREAMBLE PREPARED
SCDMA FRAMER
16
SYMBOL MAP
18
SCDMA SPREADER
TRANSMIT EQUALIZE
FILTER
MODULATE
10
POWER CONTROL
TRANSPORT CONTROL
PARAMETER SET ROM CMTS
TRANSMIT NOW EDGE
MODULATOR CONTROL

FIG. 1

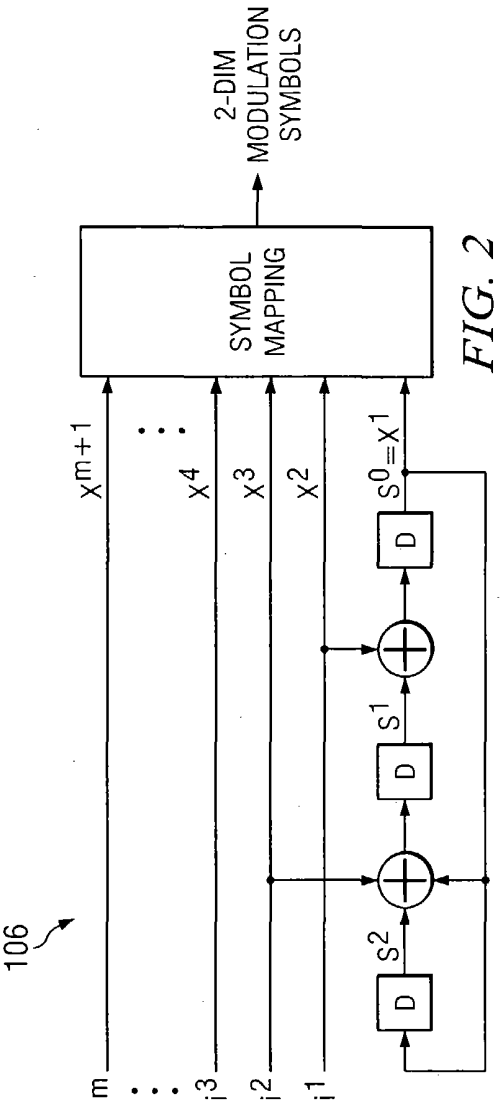
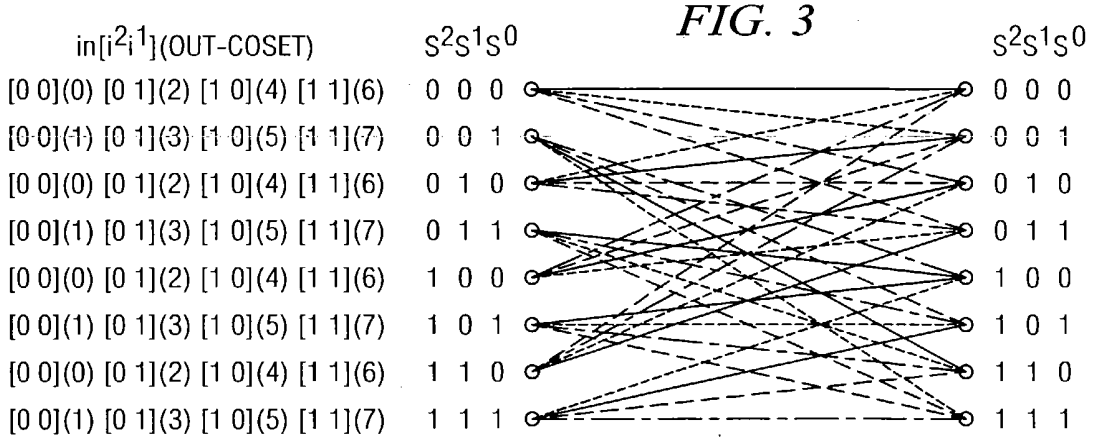

106
i^m
i^3
i^2
i^1
X^{m+1}
X^4
X^3
X^2
S^2
S^1
$S^0=X^1$
D
D
D
SYMBOL MAPPING
2-DIM MODULATION SYMBOLS

FIG. 2

FIG. 3



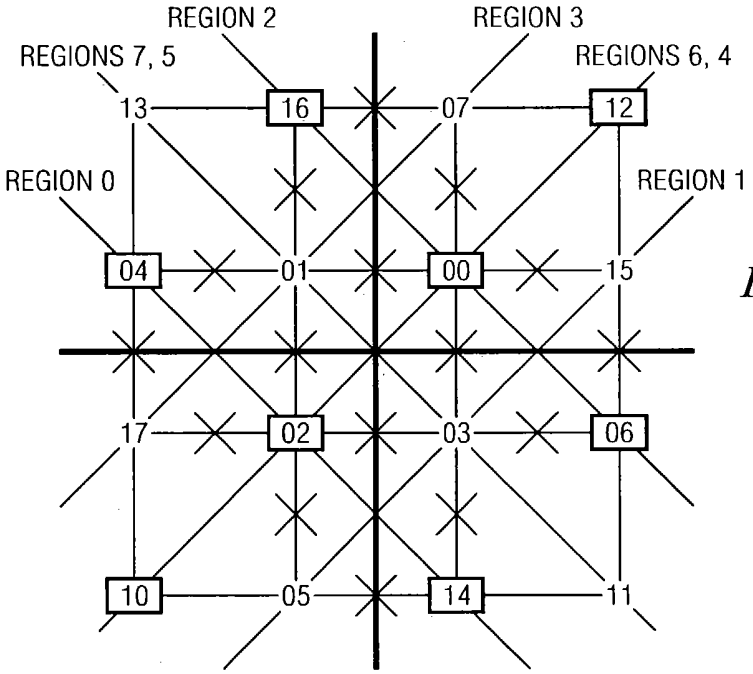


FIG. 10

FIG. 11

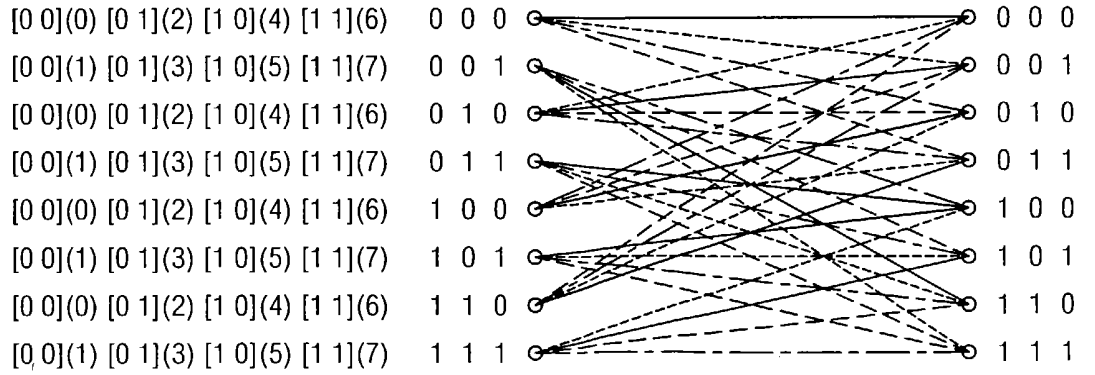


FIG. 4

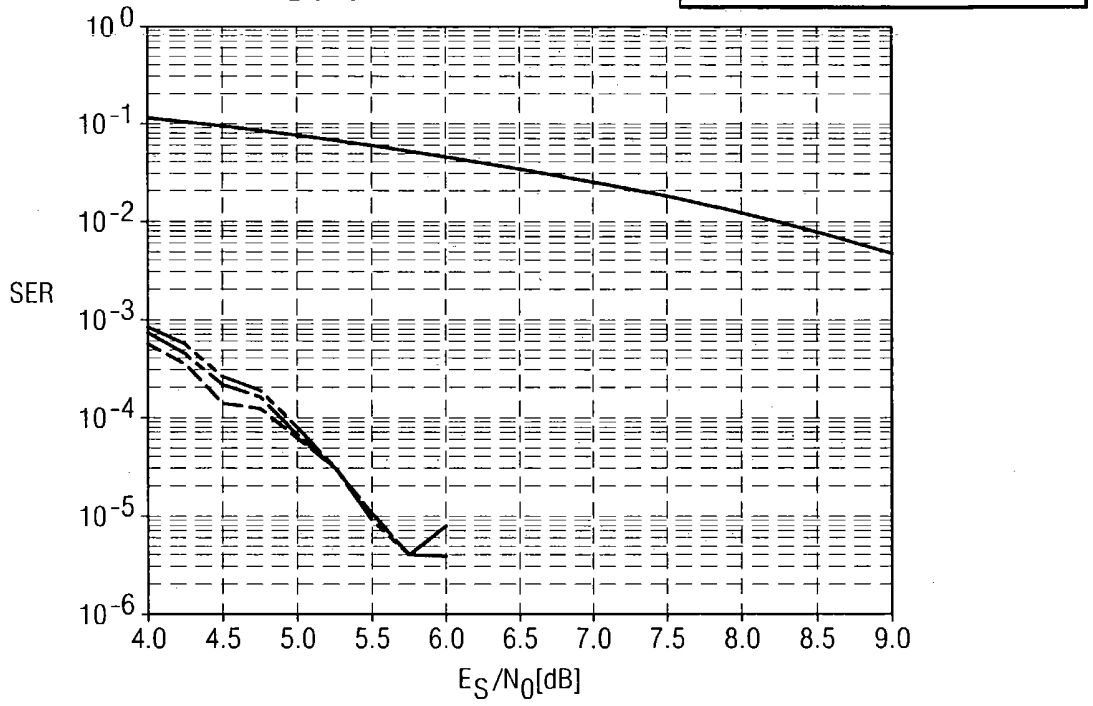

TCM+SIMPLE SLICER
TCM+VA
TCM+SMVA
TCM+RCVA
SER
10^0
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0
E_S/N_0[dB]

FIG. 5

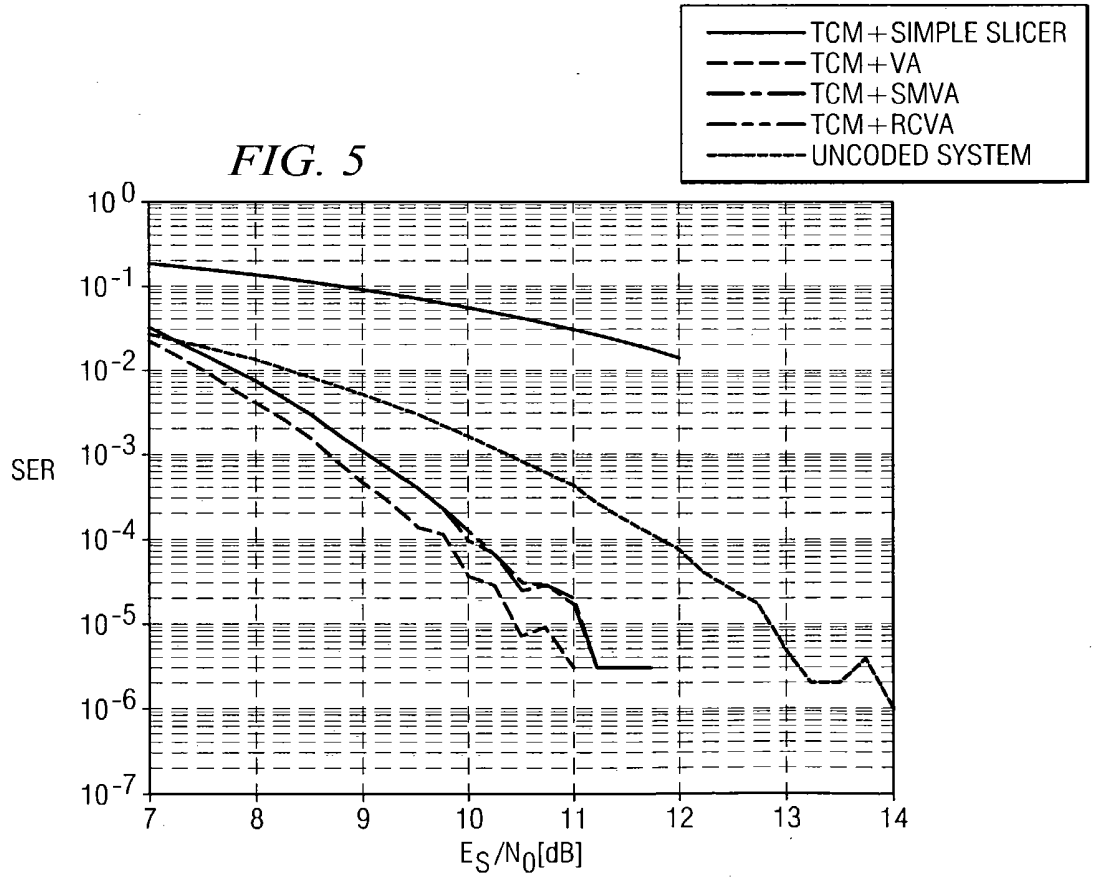

TCM+SIMPLE SLICER
TCM+VA
TCM+SMVA
TCM+RCVA
UNCODED SYSTEM
SER
10^0
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
7 8 9 10 11 12 13 14
E_S/N_0[dB]

FIG. 6

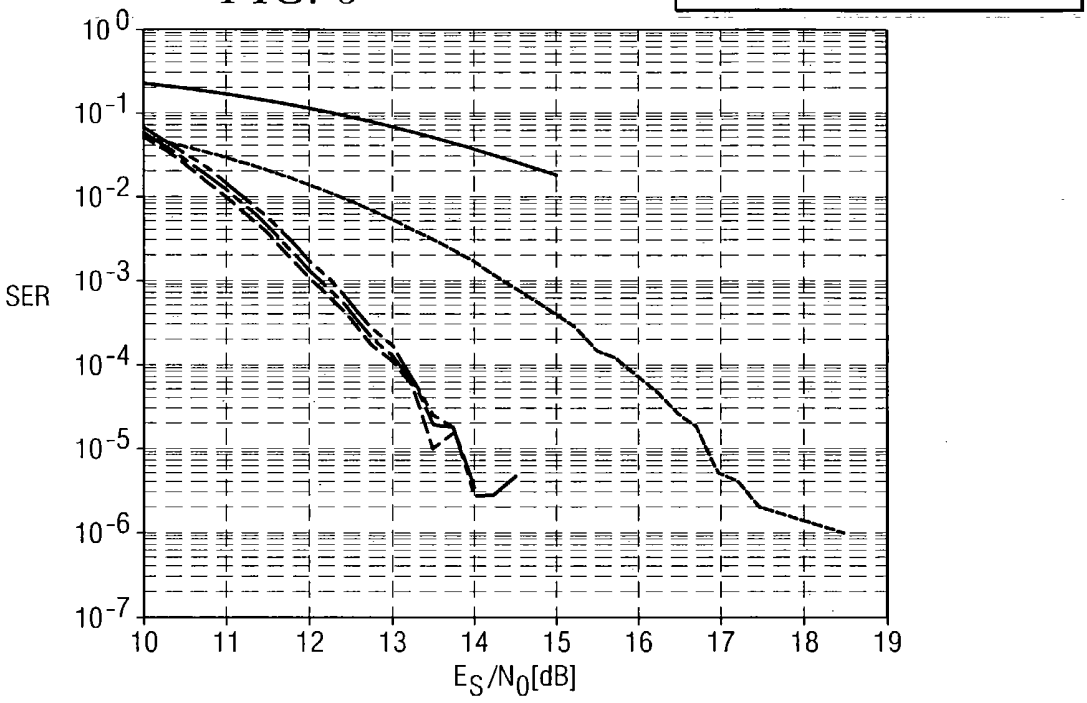

TCM+SIMPLE SLICER
TCM+VA
TCM+SMVA
TCM+RCVA
UNCODED SYSTEM
SER
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
10 11 12 13 14 15 16 17 18 19
E_S/N_0[dB]

FIG. 7

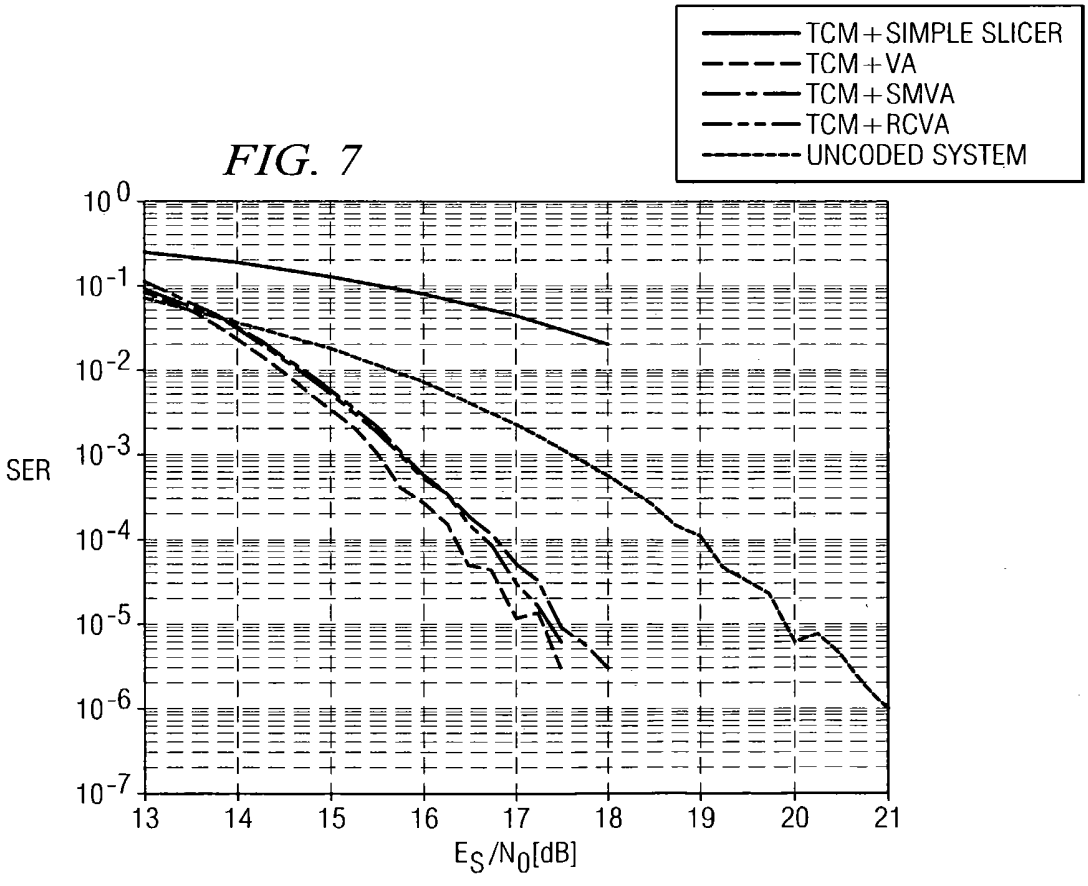

TCM+SIMPLE SLICER
TCM+VA
TCM+SMVA
TCM+RCVA
UNCODED SYSTEM
SER
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
13 14 15 16 17 18 19 20 21
E_S/N_0[dB]

FIG. 8

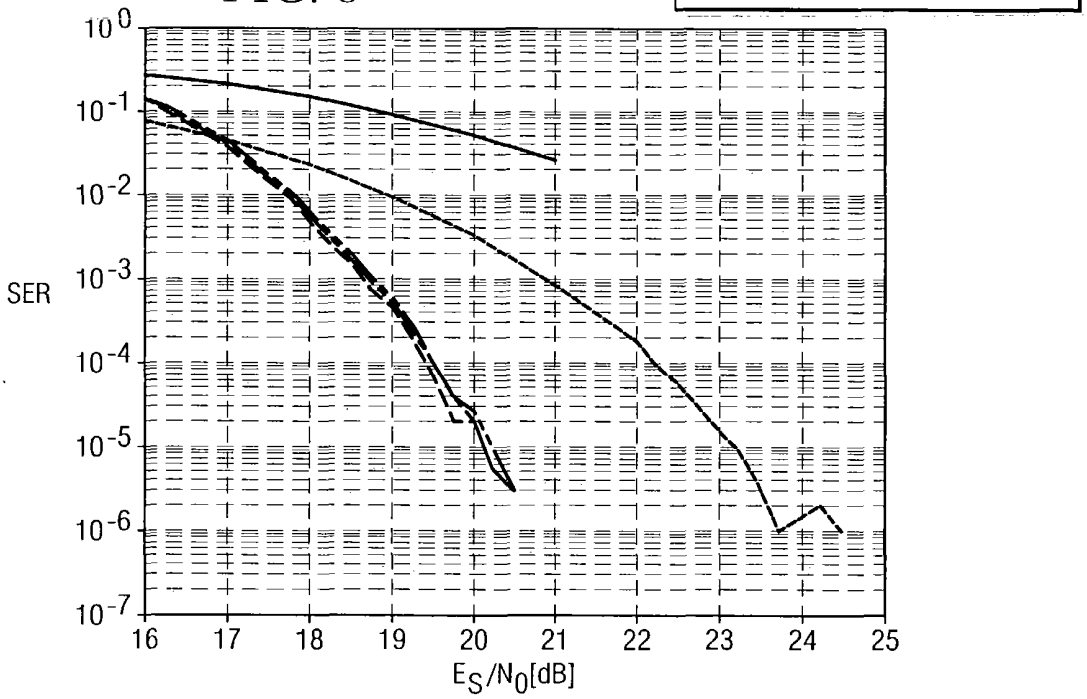
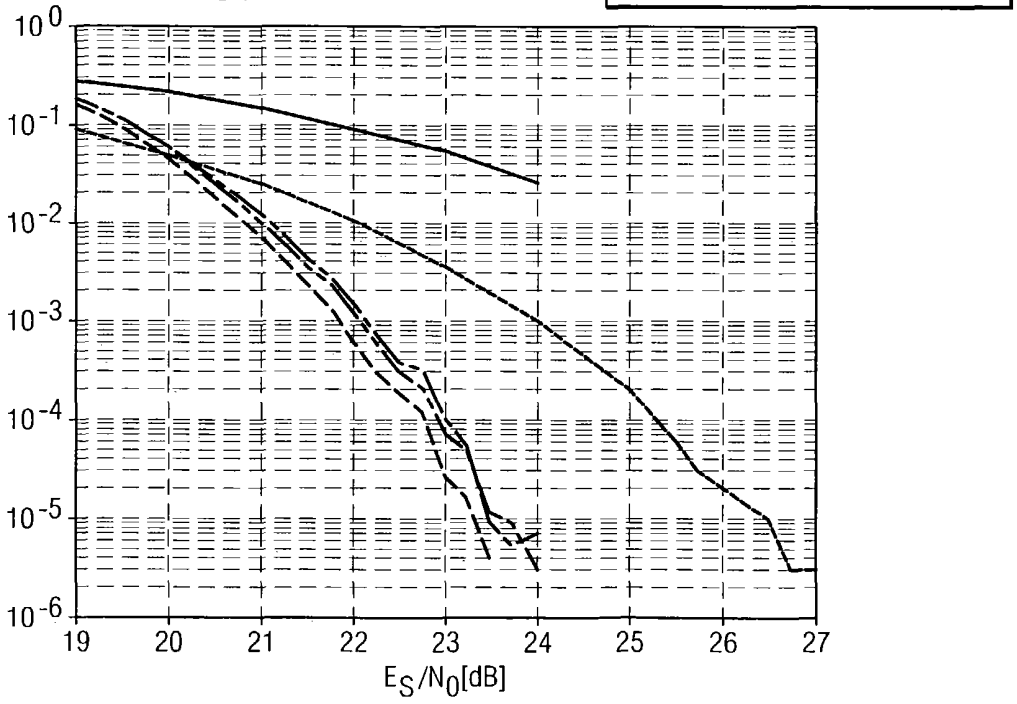

TCM+SIMPLE SLICER
TCM+VA
TCM+SMVA
TCM+RCVA
UNCODED SYSTEM
SER
10^0
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
16 17 18 19 20 21 22 23 24 25
E_S/N_0[dB]

FIG. 9


TCM+SIMPLE SLICER
TCM+VA
TCM+SMVA
TCM+RCVA
UNCODED SYSTEM
10^0
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
19 20 21 22 23 24 25 26 27
E_S/N_0[dB]